

OPINION
AND
COMMENT



A Bookkeeping Picture of Illinois
Accounting and Local Government Borrowing
Our Silver Money Policy
The Misunderstood Auditor
Fundamentals of Economics and the
Business of Banking
Communication

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OPINION AND COMMENT

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This publication of the Bureau of Business Research of the University of Illinois rests upon the belief that business men of the State will appreciate interpretative comments on current events. Because studied opinions on the significance of current trends are often more thought-provoking in the conduct of business affairs than mere tabulations of data would be, the Bureau supplements its research bulletins by producing *Opinion and Comment* as another type of service to the State.

The opinions expressed in the articles are, of course, the personal views of the respective authors and not necessarily those of the College of Commerce or the University.

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A Bookkeeping Picture of Illinois

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CURRENTLY CITIZENS of the United States are thinking about their nation in its entirety. Preliminary summaries of the census of 1940 enable us to get an over-all view of our country and to note the changes that have taken place since the census of ten years ago. Second, the threat of war forces us to think in terms of our nation as a unit. Yet we have no comprehensive picture of the American economic system available. This is true despite the phenomenal developments of the last two decades in the technique of consolidating the accounts of member corporations into one summary statement for a large holding company or parent company. We think in terms of the nation, yet we have no comprehensive picture of the national economy.

It was with this great need in mind that a tentative balance sheet and income statement for the American people was developed several years ago and published as a bulletin of the Bureau of Business Research, University of Illinois. The over-all bookkeeping picture presented therein was scarcely more than a *pro forma* picture because of the many gaps in the information available. Since then the authors of that study and other investigators have attempted to develop comprehensive bookkeeping pictures of segments of the nation. A recent bul-

letin of the Bureau of Business Research is an attempt to present a bookkeeping picture of Illinois as one segment of the nation's economy. Again it was found impossible to obtain all the data desired, although the picture is much more complete than that presented in the first bulletin.

The Illinois segment study is really a try-out on a portion of the United States of the ideas which are still being developed for the entire nation. The general objective of all these studies is to give United States citizens as "stockholders" a balance sheet and profit and loss statement of the super-business known as the United States of America and of its segments, e.g., Illinois. Data are now gathered and partial statements made in the decennial census, the quinquennial agricultural census, the biennial census of business, annual income tax reports, annual national income estimates, and dozens of other reports. Nowhere is all this mass of information brought together in one bookkeeping picture. To bring it together and unify it is the objective of these studies.

There have been other attempts to measure the totality of economic activity. First are the index numbers of wholesale, retail, and other prices which are designed to reveal changes in the price level. Such measures cannot be used for show-

ing non-price economic factors. Second, index numbers of total production and total output have been developed. Although output is more significant than the price level, these indices of output reflect only certain aspects of the functioning of our national economy. A comprehensive balance sheet and income statement seems to offer a thorough method of presenting a picture of the totality of our economic life.

It is possible to break down the national picture by showing these items separately for states, for regions, or for certain economic divisions such as Agriculture, Finance, etc. In the Illinois study the information is presented for one area—Illinois—divided into seven sub-divisions or groups: (1) Agriculture, (2) Industry, Commerce, and Utilities, (3) Finance (except banking), (4) Banking, (5) Tax-exempt Institutions, (6) Government, and (7) Individuals. No attempt was made to include other states in order to present a picture for a region or group of states. This bookkeeping picture was drawn from the broad viewpoint of the entire Illinois segment of the national economy, not from the narrow one of the state government thereof. In fact, the government is presented as only one of the seven groups, which, in the accounting-statistical sense used, are of equal rank, although they vary in size. Thus government has not been set above Agriculture or Industry but on a par with all other divisions. The authors hope that this new intellectual tool may serve to strengthen democratic self-govern-

ment and enable the people to avoid the seductive and dangerous lure of dictatorship by a "strong" man. In this study government was not considered to be the end, but merely the means by which the members of a free society strive to accomplish their objectives. In the final analysis all assets belong to individuals and all debts are owed by individuals; such is the case with all income and all costs.

The study contains more than fifty tables grouped about a master table which shows the asset and liability, the income and cost accounts for each of the seven divisions of the economy. A few grand totals are given after the reader has had an opportunity to share the authors' appreciation of the limitations of the data and the inherent difficulties involved in trying to develop grand totals.

But just what is the Illinois segment of the nation's economy? The physical assets and business enterprises are those located in Illinois, regardless of their ownership; the income is that received by Illinois residents, no matter whence it was derived. The data were available in this form. Furthermore, any state which taxes both real estate and personal incomes no matter whence derived—Illinois has no income tax—shifts from the point of view of area to the point of view of persons residing in that area.

Most of the data were derived from the *Census of Business and Statistics of Income* published by the Commerce and Treasury Departments of the Federal government. For the agricultural portions

of the study, considerable use was made of the data developed by the University's Department of Agricultural Economics from the records of certain account-keeping farms in the State. The methods of estimating unavailable items are shown in detail. Because of the inadequacies of the data and the necessity of using estimates, the authors frankly admit numerous shortcomings in data and methods.

The claims to wealth are shown as assets of the group owning the claims and as liabilities of the group owing the claims. For example, the Federal government bonds are shown as assets of those who own them, and the estimated share of Illinois in the national debt is shown as a liability of the people of Illinois. Most people are likely to include government bonds as part of their assets, but without a book-keeping picture they are unlikely to realize that the people have a liability equal to the amount of the public debt, or, in this case, equal to Illinois' share in the Federal debt.

Of course, the real wealth of Illinois is in the physical assets plus any excess of claims owned over claims owed. In this study it was found that the value of the physical assets located in Illinois in 1935 was approximately \$21 billion. Contrary to expectations, the data showed that 40 per cent was used by Individuals, a portion far in excess of the 27½ per cent used by Industry, Commerce, and Utilities. Next in size were the physical assets of all branches of government—local, state and Illinois' share of the Federal—

which amounted to 15 per cent of the total of the physical assets. In a state known for its agricultural lands, it seemed strange that only 12½ per cent of the physical assets was used in agriculture. The remaining five per cent of the physical assets was used by the other three groups—Finance, Banking, and Tax-exempt Institutions.

These proportions seem rather surprising, because when the word "wealth" is mentioned most people think of railroads, factories, retail stores, farms, etc. The results of this study seem to indicate that a new conception of wealth is sorely needed—a conception in which homes, personal effects, household equipment, etc., although usually comparatively small in value for the average person, in the total bulk much larger than the physical assets used by Industry, Agriculture, and Government. In fact, the physical assets used by Individuals are as large as the sum of the physical assets used by Industry and Agriculture combined. Thus it seems correct to say that our wealth is now in our homes rather than in our business enterprises. This new concept of the relative importance of physical assets used by individuals and by business suggests an entirely new approach for those who would talk and write about redistribution of national wealth. Of course, not *ownership* but *use* of wealth has been measured in the Bureau studies.

The physical assets used by government (streets, pavements, courthouses, etc.) presented a difficult problem in making grand totals. The figure for government items

was approximately \$3 billion; for privately owned physical assets the estimate was \$21 billion. These two items were not added, because it was believed that the value of the physical assets of government was already included in the enhanced value of private property; for example, the value of pavement in front of a residential lot has already been included in the enhanced value of the privately owned lot; to count both the value of the pavement and the enhanced value of the private property would be counting the same thing twice. Although there is much precedent for this treatment of governmental physical assets in the grand total, a dissenting opinion was published as Appendix B in the bulletin. In order to include these physical assets in the grand total and not count them twice, the private assets were reduced from \$21 billion to \$18 billion and the \$3 billion figure for government physical assets was then added to the \$18 billion of private, thus making a grand total of \$21 billion for both private and public.

The findings of the study were not so conclusive on the income and cost statement because certain breakdowns of data were not available. It is likely that the real "savings" of the Illinois segment of the national economy were less than the \$0.5 billion.

Only a perusal of the bulletin itself will give a bookkeeping picture of each of the seven segments separately. It is quite possible that the usefulness of this type of bookkeeping picture may be greater for each of these seven divisions for the

nation as a whole than for these same seven divisions of any one state.

This new way of summarizing the economy of a state or of the nation in one picture should give a better understanding of many problems of business, government, and individuals. The over-all statements should offer a wide basis of information for long-range private and governmental planning. The publication of an annual bookkeeping picture should enable us to understand the economic basis of American life and the phenomenal changes that are taking place from year to year. National bookkeeping is an art which we greatly need in peace times. In times of war, it would be an absolute essential. In totalitarian states a physical inventory is sufficient, but in our democratic nation values must still be stated in terms of dollars.

The authors regard their attempts at developing national bookkeeping as pioneering efforts; much work is still to be done. But if the United States Steel Corporation can present a comprehensive balance sheet and income statement of its vast industrial empire, there is no good and valid reason why the American people cannot have an annual bookkeeping picture of their own economy in its entirety.

MORE DETAILED STUDIES

DICKINSON, FRANK G., and EAKIN, FRANZY, *A Balance Sheet of the Nation's Economy*, Bureau of Business Research, Bulletin No. 54, 1936 (Out of Print).

DICKINSON, FRANK G., and EAKIN, FRANZY, *The Illinois Segment of the Nation's Economy for 1935: A Bookkeeping Picture*, Bureau of Business Research, Bulletin No. 60, 1940.

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Accounting and Local Government Borrowing

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GROSS INDEBTEDNESS of local governments in the United States represented by securities is at least \$15,000,000,000. Sales of local government bonds from 1934 through 1939 averaged about \$1,000,000,000 per year. These figures indicate that municipal debt occupies an important place in the financial life of the nation and that the sale of local debt obligations directly affects many thousands of investors and indirectly, through sales to insurance companies, banks, charitable and educational institutions, etc., many millions more.

In the past century many billions of dollars of American municipal bonds have been sold, and only a small percentage of these have been defaulted. This is a cause for congratulation, but it should not obscure the fact that improvements in procedure may be needed. This period was one of tremendous expansion, with the population of the country increasing from 13,000,000 in 1830 to almost ten times that number in 1937. In certain respects, communities which increase in population can incur debt with greater safety than those which may expect little

future growth. A city which issued bonds when its population numbered 50,000 may find it easy to redeem them twenty or thirty years later if its population has increased to 65,000, but difficult if its population has not grown. Although the total population of the United States has been increasing, the rate of population growth has been declining for several decades, and the present outlook is for a continued decline in the rate of growth. The significance of this fact to the municipal-bond holder is that the redemption of bonds issued today probably will not be made easy by a large increase in population as was frequently the case in the past. Municipal officials, taxpayers, and investors will therefore find it advisable to study the question of debt issues more carefully than was thought necessary heretofore.

Because the purchaser of municipal debt obligations does not assume so great an economic risk as the average industrial security holder, he sometimes overlooks the fact that there is an economic risk involved in his investment. The right and power of the municipality to

levy taxes for the redemption of the bonds and for the payment of interest do not necessarily guarantee payment. That the average municipal-bond holder relies more upon legal rights than upon financial stability is indicated by the fact that almost all circulars advertising bonds for sale state that the bonds have been examined for legality by a named firm of attorneys, but few give adequate financial data. This emphasis on the legal side resulted from the fact that a number of communities in the depression of 1873 relieved themselves of their debt obligations by having them declared void. The independent examination of a bond issue for legality is a wise procedure but should not be relied upon for more than it is worth. Recalcitrant communities can adopt obstructive tactics which do much damage to holders of obligations that are legally valid. The legality of a bond proves little as to the economic ability of the community to pay interest on it and to redeem it at maturity. A perfectly valid legal claim against an individual or a municipality is worth little if the ability to pay is not present.

Accounting can be of vital service in the problem of municipal debt. An inadequate accounting system may aid an uninformed or unscrupulous official who is not willing to risk unpopularity by increasing taxes and who wishes to solicit loans on a false basis to cover up past inefficiency or extravagance. Accounting in its broad sense includes not only the bookkeeping records, but the entire cycle of financial

control—budget, accounts, reports, and audit. The establishment of such a system, based on accepted principles of municipal accounting, and its operation under competent personnel will mean that the accounts accurately record the financial condition of the municipality and the sources and amounts of revenues and expenses, and through the operation of the budget provide a mechanism for the control of its financial transactions. Once a municipality has a good accounting system, there is a basis for issuing accurate reports which will be helpful to municipal officials, taxpayers, and investors. The National Committee on Municipal Accounting (Chicago) has developed authoritative principles and terminology for accounts and reports of public bodies, and in its bulletin, *Municipal Accounting Statements*, has detailed the financial and statistical information which should be contained in the annual report of a municipality.

For the information and protection of prospective purchasers, complete and reliable reports should be issued at the time bonds are offered for sale and periodically thereafter. Such reports should include balance sheets and operating statements of all the funds of the municipality, and other data such as the assessed and estimated true value of all taxable property, tax rates, tax and special assessment collections for a period of years, direct and overlapping debt, ratio of net bonded debt to assessed value of property, legal debt limit, and debt service charges for a number of years. This information should be made avail-

able to the investing public when new debt issues are offered for sale, together with the description which is usually given of the special features of the bonds themselves. The schedule of bond maturities should be adjusted to include the issue that is offered for sale, and a calculation should be made of the ratio of debt service charges to estimated revenue in order to determine whether there is likely to be an undue strain on the municipality in future years. If the municipality has made a careful study of its future needs and has worked out a long-range program of financing, there should be a brief description thereof. Such a plan is usually partly pay-as-you-go, and obligations issued in accordance with such a program are likely to be safer than bonds issued spasmodically by a municipality which has given little thought to its future growth and needs. There should also be an adequate description of the industries of the community so as to show the basic economic strength of the municipality. With such information before him, the prospective investor will have a comprehensive picture of the basis of his investment.

The advertising circulars for municipal securities prepared by investment dealers do not at present usually give sufficient indication of the financial strength or weakness of the debtor government. The Investment Bankers' Association of America has taken steps from time to time to improve this situation, and its recommendations as contained in "General Circular Recom-

mendations for Municipal Securities," adopted by the Board of Governors on May 18, 1938, suggest much information that is of value to prospective investors, including a number of the items mentioned above. There should also be added, however, the purposes for which debt already outstanding was issued and its maturity dates, the ratio of debt service charges to dependable revenue after the new bonds are issued, the legal debt limit, and the financial condition of the various funds of the municipality.

The meager information offered by municipalities and municipal security dealers is in striking contrast to the full disclosure required by the Securities Act of 1933 and Securities Exchange Act of 1934. The act of 1933 requires, among other things, that a recent balance sheet and profit and loss statements for the preceding three years, certified by independent public or certified accountants, be submitted for securities offered to the public, and the act of 1934 gives the Securities and Exchange Commission the right to require this of all securities listed on a national securities exchange. The securities of municipalities were exempted from these provisions to avoid raising the constitutional question of invading the sovereignty of the states. Even in the case of the offerings of foreign governments it is required that certain detailed information be filed, and in August, 1939, the Securities and Exchange Commission demanded additional information from the German government about its budget, debt, gold and foreign exchange position, etc.,

in connection with a bond issue being offered by that government in lieu of interest on German bonds held by Americans.

The purchaser of municipal securities is entitled to a complete picture of the finances and economic background of the municipality, and there is an obligation upon municipalities and municipal security dealers to supply this information.

In order to keep the security holder currently informed, each municipality should publish a complete annual report, and from time to time furnish newspapers and financial journals with interim reports and important information bearing on its finances. These reports should conform in principle to those recommended by the National Committee on Municipal Accounting. It is unfortunate that only a small minority of American municipalities publish annual reports. The Municipal Finance Officers' Association and the Investment Bankers' Association have also drawn up quarterly report forms which municipalities are encouraged to use to furnish information to investors and bond dealers. These reports contain the types of information indicated above as being needed by investors. The widespread use of these methods of reporting by municipalities would be exceedingly helpful to the investing public and would create goodwill for the local governments.

It is not sufficient, however, merely to have financial data as prepared by city officials and employees. On the question as to whether or not a debt issue is legal,

the opinion of the municipality's own attorney is not accepted, regardless of how competent he may be. The interest of the investors is safeguarded by the practice of requiring approval by independent lawyers. Investors in local government securities are also entitled to the added protection which examination and certification of financial information by independent public accountants can provide. If a municipality publishes a complete annual financial report certified by an independent accountant, such report could be used in selling securities within a reasonable time after the close of the fiscal year. When securities are sold later than this, balance sheets and operating statements of a more recent date are desirable. When revenue bonds payable only from the earnings of a particular municipal enterprise are sold, it is naturally even more important that the financial record of the enterprise be certified by independent accountants.

It should not be assumed that the audits by certified public accountants are beneficial to the investor alone. The honest municipal employee is given a clean bill of health and, in addition, may receive advice based on the auditors' wide experience; the governing body receives assurance that its orders are being carried out, and that no irregularities are present; and the taxpayer can feel more confident of the way in which his business is being administered. Complete financial reports verified by certified public accountants give the municipal-bond holder verification of the financial strength

of the municipality from an independent source. Municipalities which have put their houses in order and which issue reliable reports may improve their credit standing with security dealers and with the investing public and are often able to finance their debt obligations at lower cost.

In the selection of an auditor for such purposes, care should be taken to choose one who has satisfactory professional standing and experience, together with a knowledge of the problems involved in public audits. The mere fact that an auditor is a certified public accountant is not of itself a guarantee of thorough or competent work. Evidence of suitable ability as indicated by experience in and acquaintance with this particular field of work, as well as auditing and accounting practice in general, is essential if dependable results are to be secured. The fundamentals of engagement and procedure in such cases are set forth fully in *Municipal Audit Procedure* (1939), a publication of the National Committee on Municipal Accounting.

To summarize, accounting can be of great service in the problems presented by public borrowing. It

does not prohibit a municipality from incurring indebtedness under unfavorable conditions or beyond reasonable amounts, and it does not protect it from natural calamities, any more than the speedometer and the steering wheel of an automobile prevent it from traveling at a reckless rate of speed or being destroyed by fire. But accounting does put into the hands of the city official and the taxpayer a mechanism with which the financial affairs of the city may be controlled. It gives the security dealer and the investor important information of a reliable nature which will aid them in making their decisions.

In conclusion, it is highly desirable (1) that all municipalities adopt adequate accounting systems based on the principles recommended by the National Committee on Municipal Accounting; (2) that when municipal securities are offered for public sale, complete financial reports drafted in the form recommended by the National Committee be required, carrying the approval of independent certified public accountants; and (3) that similar reports be required periodically during the life of the debt obligation.

Our Silver Money Policy

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SINCE THE "free silver" campaign in 1896, falling prices and economic depression have usually recalled the ghost of William Jennings Bryan, and silver money has been advocated as the panacea for all economic ills.

When the world price of silver declined in 1928 and 1929, the silver producers again urged their senators to pass legislation providing for the purchase of silver by the Federal government. The major argument advanced for the purchase of silver by the Treasury was that the government could then issue silver certificates against the silver bullion and thus add to the total monetary circulation in the United States.

The silver interests were not successful in selling their program to the country until the depression had incited the debtor class in the nation to insist upon an inflationary monetary program as a means of restoring prosperity. The so-called "silver bloc" in the Senate united with the inflationary elements and in 1934 persuaded President Roosevelt to embark upon a program of purchasing silver. On May 22 of that year, the President sent a special message to Congress in which he said:

We seek to remedy a maladjustment in our currency by the further acquisition and monetary use of silver . . . I, therefore, recommend legislation at the present session declaring it to be

the policy of the United States to increase the amount of silver in our monetary stocks with the ultimate objective of leaving and maintaining one-fourth of their monetary value in silver and three-fourths in gold.

The Silver Purchase Act of June 11, 1934, authorized and directed the Secretary of the Treasury to buy silver at home and abroad at such rates, times, and terms as he deemed reasonable and advantageous to the public interest. Such purchases were not to be made at a price in excess of the monetary value (now \$1.29 a fine ounce), and in the case of silver situated in the United States on May 1, 1934, were not to be made at a price exceeding 50 cents a fine ounce.

On June 30, 1934, the President nationalized all monetary silver situated in the United States and directed all holders to deliver the silver to the Treasury at the price of 50 cents a fine ounce. Under this proclamation the Treasury purchased one hundred and thirteen million ounces, the amount then on hand in the United States, at 50 cents per ounce. Five months later the price for newly mined silver was raised to 64½ cents an ounce. When the world price of silver rose to 65 cents, the Treasury on April 10, 1935, raised its price to 71.1 cents, and two weeks later to 77.57 cents.

Because of the speculation in silver, the world price rose to 81 cents

in April, 1935, but when the Treasury reduced its purchases, the price fell to 45 cents in January, 1936. In May, 1940, the world price of silver was 34 cents a fine ounce.

The President's proclamation of December, 1937, set the price of newly mined domestic silver at approximately 65 cents; this price prevailed until the act of July, 1939, set the price at 71.7 cents per fine ounce.

Since the passage of the Silver Purchase Act of 1934, the Secretary of the Treasury has purchased more than two billion ounces of silver from foreign nations and some four hundred million ounces from domestic producers. Considering the fact that this silver cost over \$1,000,000,000, it is not unreasonable to inquire into the purposes of the administration's silver-purchasing program and to evaluate its silver monetary policies.

As set forth by the President and the silver proponents, the purposes of the recent silver program may be summarized as follows:

1. To increase the monetary stock by making silver one fourth of our money base.

2. To raise the price of silver as a means of aiding the silver-producing sections of the nation.

3. To raise the general level of prices in order to ease the debt burden of the nation.

4. To aid Mexico, Peru, China, and other silver-using nations by increasing the price of silver.

The first argument, that we need silver to broaden the money base and thus relieve the strain on gold, seems specious for two reasons:

(a) silver is not an acceptable commodity for the redemption of paper money; and (b) we have an ample gold reserve with which to redeem our paper money.

The silver that we now possess is not a reserve acceptable elsewhere in the world except in very limited amounts at a fluctuating price. Because it is too heavy, silver will not circulate in large quantities; hence certificates must be employed. Since, under a gold standard, both silver coins and silver currency must be redeemable in gold, all silver money is a demand liability against which a gold reserve must be kept. The statement that "silver money is a promise to pay written on silver" is partly correct. The silver in a silver dollar measured at the present price on the world market is worth approximately 27 cents. Silver dollars circulate at parity with paper money because both are redeemable in gold for purposes of foreign exchange or for the arts.

The use of silver dollars or silver certificates does not afford a larger base for our money. Since silver money has the same claim on gold as paper money, to use the latter would be more economical. The argument that the government is making a profit by purchasing a dollar's worth of silver and then issuing almost \$2 in silver certificates against it is correct; this is possible, however, only because the silver certificates are secured by our gold reserve for international exchange. The government could therefore make a greater profit by purchasing the silver at the world market price of 34 cents an ounce.

Indeed, if the object of the government in its monetary program were the making of a profit, an even larger one could be obtained by issuing greenbacks (United States notes) and paying these out just as is done with silver, the only expense being that of printing the notes.

The excess reserves in the Federal Reserve Banks are indisputable evidence that we do not need more money in circulation. The placing of more money in circulation is currently endangering the credit control powers that we have entrusted to the Federal Reserve System and is inflationary in effect. If inflation is desired, the use of greenbacks would be more economical and practically as sound. We now have approximately \$20,000,000,000 in gold in the United States. This stock is more than four times the amount we possessed in 1929, and two or three times the amount needed for the redemption of our currency. It is obvious that we do not need to broaden the money base by using silver. Furthermore, since the President enunciated his objective of having one fourth of our monetary value in silver and three fourths in gold, the gold supply of the United States has increased from \$4.5 billion to nearly \$20 billion. If we are to maintain one silver dollar for each three dollars in gold in our monetary stock, we will need some \$6.6 billion in silver stock. Even with the vast purchases of silver of the last seven years, the ratio of silver to gold in our monetary stock has declined.

The second argument advanced

in support of the silver program suggests the fact that more than 90 per cent of the silver produced in the United States is mined in the following seven states: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, and Utah. In these states silver production is largely incidental to other important mining industries, approximately 80 per cent of the domestic output being a by-product of copper, lead, or zinc mining. A rise in the price of silver would swell the profits of the mining industry, but it would not greatly increase the number of men employed in the United States. In 1938 the total domestic production of silver was only 62 million ounces, which the government purchased for \$41,000,000. From the standpoint of number of persons employed, many other industries are more important than the silver industry. If subsidies are justifiable, it would surely be better for the government to subsidize those whose products are actually needed.

In actual practice the government is now paying 71 cents an ounce for a product that could be purchased for 34 cents an ounce. This difference amounts to a subsidy of 37 cents an ounce to the silver producers. In effect, the subsidy is political rather than economic. The high price paid for silver may not greatly stimulate employment, but it does tend to influence the votes of the senators from the seven silver-producing states. In return for a subsidy of several million dollars each year to seven states whose combined population is less than that of Missouri, the votes of four-

teen senators can be secured for other measures.

The "silver bloc" can often obtain a majority of votes for proposals which they favor by the familiar legislative device of "logrolling," that is, trading of their votes for proposals favored by other senators for favorable votes of the latter on silver legislation. By this process, the subsidy to silver tends to increase the spending of public money in the support of other purely local interests. Certainly, it does not materially increase employment in the United States or add to the soundness of our money.

Because of its efforts in connection with the third purpose of the program, the "silver bloc" has always been able to secure the support of that portion of our economy which desires inflation. The "agricultural bloc" is usually allied with the silver interests because it wishes to increase the amount of money in circulation as a means of raising prices. The inflationists usually ascribe low prices and depressions to a scarcity of gold; hence they desire to increase the monetary stocks of the nation by using silver as a base for paper money. The Silver Purchase Act of 1934 had the support of the inflationist group in Congress, since they assumed that there was a scarcity of money in circulation and that inflation would stimulate recovery.

Although the Treasury has increased the amount of money in circulation by approximately \$1,500,000,000 since 1934, chiefly by the issue of silver certificates, no significant inflation has occurred. The

added money has flowed to the banks, and has had only a passing effect on trade. The banks, in turn, have deposited the unneeded money in the form of "excess reserves" with the Federal Reserve Banks. These "excess reserves," which in May, 1940, amounted to more than \$5,000,000,000, will allow a large expansion of *credit* for business purposes, but will not necessarily bring about any significant expansion in trade or industry.

The fourth argument is of special interest at the present time because there is a bill before Congress which proposes to end the purchase of foreign silver by the government of the United States. This bill (S 785), sponsored by Senator Townsend of Delaware, passed the Senate in May by a vote of 45 to 36; but the preparedness issue has delayed action on it by the House.

On March 15, 1940, Secretary of the Treasury Morgenthau, in a hearing before the Senate Banking and Currency Committee, opposed Senator Townsend's bill to curb foreign silver purchases. The Secretary testified that purchases of foreign silver enable other countries to acquire needed dollar exchanges, and that any substantial decline in the price of silver would curtail their purchases at the very time when we are eager to improve our foreign relations. He pointed out that the Committee had been authorized by the Senate to recommend a national monetary and banking policy, and he suggested the nature of the governmental machinery required to carry out the policies. He further added that

such a study "would be comprehensive in its nature and would necessarily include a survey of the entire silver problem and the relation of silver to the other problems in the monetary field."

From 1933 until March 15 of this year, the United States purchased 2.1 billion ounces of silver from foreign countries. Between December 15, 1935, and February 14, 1940, the government's total purchases amounted to 1.1 billion ounces, for which it paid \$497,100,000. In that period the Treasury paid to China \$218,000,000, to Mexico \$62,629,000, and to Canada \$26,876,000 for silver bullion. The remaining imports came from England, Japan, India, South America, and some of the smaller nations.

The silver advocates contended that the silver-using countries were unable to purchase their usual amounts of the world's goods because of the low price of silver. It was argued that such countries as Mexico, China, India, and Peru would be benefited by a rise in the price of silver, and that they in turn would aid world trade.

The theory underlying our foreign silver purchases was not realized in actual practice. In fact, the decline in the price of silver between 1928 and 1933 probably aided China, because it inflated commodity prices and saved her from the first two years of depression. After the American foreign purchases became effective in 1934, the price of silver rose, and China experienced a deflation and depression which had previously been partly offset by the falling price of silver.

The effect of our silver policy on Mexico is difficult to evaluate, because although the early effects were detrimental the later effects were somewhat helpful to that country. Since Mexico produces approximately 40 per cent of the world's output of silver, the decline in the price of the product after 1927 reduced her export values. To meet this situation, Mexico employed a series of measures including the prohibition of the importing of silver coin, the stopping of silver coinage, and the control of foreign exchange. In the spring of 1932, she took steps toward restoring a gold standard, and stabilized the peso at the rate of 3.6 pesos to the American dollar. At this rate the peso would circulate so long as silver remained below 72 cents an ounce.

In 1935 the world price of silver, stimulated by United States buying, rose to 81 cents, and Mexico was again forced to reform her currency. She nationalized silver, abandoned the silver standard, and adopted a system of managed currency. In July, 1937, the United States contracted to sell gold to Mexico in exchange for silver, and by this exchange stabilized the peso in relation to the dollar. By this process, the purchase of American goods by Mexico has been increased and Mexico has obtained a more stable exchange rate for the peso, but in the exchange the United States is receiving silver that it cannot use to any good purpose.

In general, it is doubtful whether our foreign silver policy has accomplished the purposes stated. The sil-

ver-using countries purchase only 10 per cent of the world's exports, and the decline in their imports since 1929 has been less than that of the other commercial nations. Therefore the rise in the price of silver could not have exerted any great influence on world trade and did not appreciably increase our exports. Our purchases of silver have tended to hold up its price on the world market, but the silver-using countries have not been materially benefited, and we have bought more than two billion ounces of silver that can be used only if some nations which have an unfavorable trade balance with the United States in the future are willing to take silver in payment.

In evaluating the silver policy of the United States since 1933, it is difficult to justify either the purposes or the attainments of its sponsors. The program followed has not added to the soundness of our currency, nor has it measurably stimulated recovery. Purchases of foreign silver have not been of material aid to foreign countries and have certainly not helped the United States.

The major results of the policy on our own economy have been of doubtful value. We have in our vaults some two billion ounces of silver, which may be designated as an asset. If we sold this silver at the present world price of 34 cents an ounce, it would bring approximately \$600,000,000. But, since silver is not particularly desired by many countries at the present time, it cannot be considered a marketable asset. In fact, 600,000,000 bushels

of wheat stored in our vaults would be a more salable and a more desirable asset.

The purchases of foreign silver should be discontinued. The exchanging of United States goods for foreign silver does aid some nations, but if we desire to export to these nations we should acquire commodities that can be used. Our silver hoard is not usable at the price paid for it, and is expensive to store.

The government has paid a subsidy varying from 1 to 30 cents an ounce on the domestic silver purchased; hence users of the metal for the arts have been forced to charge higher prices for their silverware. If the government would cease all silver purchases, both domestic and foreign, the price of silver would likely fall below 30 cents an ounce, and it would be possible to buy silverware at a price much below the present charges. The Treasury could then sell the stored silver for use in the arts and our present useless hoard would come into the hands of those who desire silver products. Thus the price of silver would be stabilized according to demand and supply.

The Treasury would be forced to take a considerable loss on its silver bullion, but it would rid itself of a useless metal and would recapture a portion of its expenditures. The proceeds from the silver sales could be applied on the income for the year or for debt reduction. If it is necessary to subsidize the mining interests, an outright money subsidy would save the cost of handling and storing useless silver bullion, and

silverware could be bought at a lower price. The silver certificates now in circulation could be replaced by Federal Reserve notes, if the

Board of Governors of the Federal Reserve System should desire to maintain money in circulation at the present amount.

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The Misunderstood Auditor

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THE MCKESSON-ROBBINS case, which recently attracted widespread attention and much newspaper publicity, has showed, among other things, that there is considerable misunderstanding of what an audit comprises. If it were possible to obtain a sample of public opinion regarding the meaning of the term "audit" as applied to the work of a firm of certified public accountants, the result would likely be as much of a surprise to professional auditors as the revelation of the actual nature of an audit would be to the general public. The general conception of the purpose and nature of an audit is far different from its purpose and nature as conceived of by professional auditors. Public accountants, on their part, take for granted a general understanding of the function of auditing which does not exist.

Without attempting any discussion of the issues involved in any recent cases, it may be interesting to see how the generally accepted idea of an audit differs from the balance sheet audit as actually conducted by the leading public ac-

counting firms at present, and to learn why such differences are found.

If one of the currently popular "Man on the Street" broadcasts were to pose the question: "What is an audit and what is its purpose?" to unprepared performers, it is doubtful whether much of an answer would be forthcoming. The average person has, until recently, given little thought to the subject chiefly because he has had little cause to puzzle himself about it. If he did venture a reply, it would probably show that he thought an auditor was called in for three purposes: first, to check up on the accuracy of the bookkeeper; second, to see that no fraud or dishonesty has been practised by any of the employees of the company; and third, to make certain that all values are as stated.

Many people think of the auditor as a composite personality. He is regarded as a mathematical wizard—a "lightning calculator" whose searching survey of the records immediately brings to view the errors of a careless or inexperienced bookkeeper. Moreover, he is a super-bookkeeper

whose mysterious knowledge of the peculiarities of double entry enables him to bring into exact balance any set of books, no matter how confused they may have become in the hands of the regular bookkeeper. From another viewpoint, he is looked upon as a financial detective—a Sherlock Holmes of business—whose investigation of company records reveals any dishonesty, whether it be the petty thievery of a stock boy or the cleverly camouflaged embezzlement of an officer. At times, he is considered an expert on valuation, with the ability to state assets in the balance sheet at the exact amounts for which they could be sold if necessary. Thus the auditor's certificate is regarded as a guarantee that there are no misstatements or errors in the company's books, that everything is "right" with the company, that all values are realizable in cash at balance-sheet figures, and, above all, that there has been no dishonesty, no misappropriation of cash or other assets.

The methods by which the auditor arrives at his conclusions that all is right or that certain defalcations have taken place are not clearly understood. Probably the first thought is "Why, he checks the records." Beyond that point, the notions are likely to be vague. Few of us have the opportunity to become acquainted with auditors or auditing. Moreover, the nature of their work necessarily demands reticence on the part of auditors in regard to particular cases. Supposedly, the auditor, like the doctor, on the basis of an examination can tell

just what is wrong and just why it is wrong. It is taken for granted that he checks all the records completely, the assumption being that otherwise he could not be absolutely sure that everything is all right.

Just as the layman has had an inadequate conception of the purpose and nature of an audit, the professional auditor has taken for granted an understanding of his duties which actually does not exist. Although his audit program and purpose are far different from the popular conception of them, he has done little, if anything, either to obtain the viewpoint of the public or to correct mistaken impressions. To discover just how widely the audit differs from the generally accepted notions thereof, it is only necessary to present a brief explanation of the actual purpose and duties of the auditor.

First, the auditor is neither a valuation expert nor an appraiser. The idea held by so many that balance-sheet figures for plant and property show what the assets named would bring if offered for sale is much different from the attitude adopted by accountants, both public and industrial. Accountants reason somewhat as follows: a business does not acquire fixed properties for the purpose of selling them. In the great majority of cases such assets are purchased for use by the business in producing its product or service. Hence the accountant is concerned with "use value" rather than with "sales value." He looks at plant assets as a bundle of services purchased by the business to be utilized over a long period of

time. A building gives service as long as it is in use; its cost may therefore be likened to prepaid rent for the use of the building. Hence, the accountant ordinarily "values" plant and equipment at that portion of its cost which its remaining service life bears to its total service life—in other words, the cost of the unused services. At first thought, such a method of valuation may seem strange and perhaps useless, yet when one remembers (1) that most business properties will not be offered for sale unless something extremely unusual happens, (2) that many business properties have no ready market (think of trying to sell a bank building or a flour mill at a forced sale), (3) that probably no two people would value such an asset at the same figure (note some of the absurd results in public utility valuation cases), and (4) that business men are more interested in the value of the property to themselves—i.e., its use value—than they are in its value to others, the accounting method of valuation for plant and similar property seems more reasonable.

Next, the chief purpose of an audit is not the discovery of fraud. The auditor owes his acceptance as a professional man, like a doctor or a lawyer, to the fact that he is an independent agent. When engaged to audit the statements and records of a corporation, he is called in as an independent third party to determine whether those entrusted with the management and administration of the business have served properly and well those who own the business—stockholders, partners, or indi-

viduals having some other type of interest. Consequently, the accountant must check the reports of the management to determine whether the amount of income reported has actually been realized, whether the assets and liabilities in the balance sheet are actually in existence, and whether any of these items have been either over- or under-stated. In investigating these points, he examines the adequacy of the system of internal control, the accounting system and methods of the company, and the classification and arrangement of its financial statements. In addition and as an aid to the management, he develops comparative statements by which the results of the operations of the current period may be compared with those of previous periods; on the basis of his wide experience with many types of business he offers advice on matters of business policy; he aids in the preparation of budgets and programs of activity; and he studies the internal organization of his client's staff so that helpful improvements may be suggested.

During the course of the examination which gives him the necessary information for the preparation of his report to the owners on the activities of the management and for his helpful suggestions to management, the auditor is almost certain to discover the existence of any fraud or dishonesty. Yet even if a complete check of every transaction and of every entry were made, it is still possible that fraud or dishonesty might exist undetected for some time, although sooner or later it would almost in-

evitably come to light. If enough members of an organization worked together, they might conceal the evidence of their dishonesty so effectively that it is doubtful if any form of audit or investigation could unearth their activities. Yet such cooperation is rare indeed in the history of business; if the public accountant were to base his investigation methods upon the assumption that his task is to detect such rare cases of collusion he would have a program so detailed and lengthy that the average business could not afford its cost—and undoubtedly would consider it unnecessary if they could afford it. For that reason the accountant has adapted his procedures to serve ownership and management interests in the great majority of cases rather than in the "one in a million" case. The obtaining of information for an instructive report to owners and to management is the principal purpose of the audit; detection of fraud grows out of this attempt to obtain information and is of only secondary importance.

Before examining the procedure followed by the auditor in making his investigation several facts frequently taken for granted by the professional auditor should be noted. First of all, the amount of time and work which an auditor can devote to any single engagement is limited. An auditor may be called upon for any service from a detailed examination of every transaction down to the performance of any single one of the services outlined in an earlier paragraph. Just as a doctor may be called upon to give a patient treat-

ment for a slight stomach disorder only to find the patient suffering from a more severe ailment, such as acute appendicitis, necessitating an operation, so an auditor called upon for some minor service may find evidence that a more detailed examination is necessary. And just as the physician is helpless to perform the required operation without the permission of his patient, so the auditor is helpless to serve beyond the terms of his contract without special permission.

Another fact not always considered is that the employees of many firms regularly audited by public accountants are as expert and as well-versed in bookkeeping and accounting as are the public accountants themselves. In fact, many certified public accountants have given up public practice to accept positions as company auditors or comptrollers in some private enterprise. Why then, comes the query, need an audit be made, if the men who keep the records know as much as do the auditors? And the answer comes back just as readily: Because an independent third party examination is the only real assurance that the hired employees have followed generally recognized principles of account-keeping and statement preparation. As these hired employees owe their jobs to their employers, it is only fair to them and to the owners of the business that the stamp of independent approval be placed upon their work.

Finally, it must be realized that every business enterprise has some system of internal organization. In well-managed concerns this organi-

zation is so set up that it provides an automatic check upon the honesty of the individual members. By properly organizing and correlating the work of all members of the staff, it is possible to have the work of one check against the work of another so that unless collusion exists between at least two individuals, any error or dishonesty is automatically brought to light. A simple illustration of this may be offered. If, in a department store, the employee who makes cash sales rings each sale up on a visible cash register which totals all items, his work can be checked each day by another employee who takes up the day's receipts and checks them against the cash register totals. Thus if the sales clerk takes any money from the drawer other than for legitimate change purposes the second employee will readily determine the fact from his check of the cash register total. The fact that customers may note the amount rung up on the register to be sure that they are not overcharged acts as a deterrent upon any desire of the clerk to neglect the ringing up of every sale. Hence there is a simple but effective check on the cash sales of the day. Naturally the receipt or O.K. given the clerk by the second employee for the amount received necessitates the latter's turning the same amount of cash into the office. Similar although perhaps more complicated checks may be set up which act as a safeguard at every point where defalcation or error is possible.

The limited engagement of the auditor, the employing of expert ac-

countants and bookkeepers by his clients, and the existence of sound systems of internal organization and control in their offices have a decided effect upon his work.

It is not difficult to see the effect of his limited engagement. The accountant and his client often without more than a cursory survey of the job make the contract for the audit. If later developments show the necessity of a more exhaustive examination, the auditor is distinctly limited by his contract of employment. Of course he advises his client of the need for more work, but unless his contract is extended, the extension of his examination advised is not possible.

The employing of expert bookkeepers and accountants by a client enables the independent auditor to devote far less time to the checking of details than would otherwise be required. A "test-check," that is, a sample checking of the transactions for a month or two or for various weeks selected at random, is sufficient to show the auditor that the client's bookkeeping staff is not only capable but actually is performing the work properly. If anything suspicious or out-of-order is discovered by the test-checks, more detailed checks follow, but if the samples show no evidence of error, intentional or unintentional, further checks can logically be considered unnecessary. The importance of this feature of the audit is readily appreciated when one considers the vast number of transactions occurring every year in such concerns as General Motors, American Telephone and Telegraph, and United

States Steel. The detailed checking of every transaction by a relatively small staff of auditors in a limited period of time is a physical impossibility; test-checks provide a reasonable and practical substitute.

By thus eliminating the necessity of detailed checking, the accountant finds time within the terms of his limited engagement to examine the corporate charter, by-laws, minute books, trust indentures, share certificate books, important contracts, tax returns, and securities; to obtain confirmations from banks with regard to cash balances, securities held, and notes discounted; and to consult registrars and trustees regarding funded debt and sinking funds, thus obtaining the information necessary to report on the propriety of managerial actions and the accuracy of financial statements.

One of the most important features of the auditor's work is his examination of the system of internal check and control and the manner in which it is carried out. His evaluation of the efficacy of the internal control is the basis for his determining just what test-checks should be applied, the degree to which they should be employed, and the points at which their application will yield the most information. A sound system of internal check carefully

followed makes far less detailed examination necessary than one either loosely organized or carelessly applied. If obvious defects in the internal control are discovered, additional examination is required; if no defects are found, the auditor is entirely justified in relying upon a reasonable amount of test-checking. He is not employed for the sole purpose of discovering defalcations or dishonesty; his task is to prepare an informative report to owners and to management.

Thus the auditor's chief work is the examination of the system of internal check and control, the test-checking (not detailed) of books and records, and the examination of such other sources of information as will provide the necessary facts. Then the auditor, as an independent third party, can assure owners that management has not exceeded the bounds of its authority and that the reports which it has rendered regarding operations and financial condition are accurate. Furthermore, as a competent business adviser, he can furnish to management helpful comparisons, analyses, criticism, and suggestions—a far different procedure and purpose than the financial sleuthing to discover fraud which is the popular conception of an audit.

Fundamentals of Economics and The Business of Banking

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BANKING IS ONE of the most important phases of activity in our economic system, and the study of banking principles and practices is a basic part of the science of economics. Students of economics, bankers, and business men often wonder how the banking business looks to the economic theorist and how well banking practices conform to the economic theory of banking. This article will consider questions of this sort. It will suggest both the importance of economic principles to the banker and the extent to which a knowledge of the field of general economics may help the members of the banking profession fulfill their desire to be better bankers.

It is obvious, of course, that many principles of economics are of direct application to the business of banking. It is a fundamental principle of economics that specialized production is generally more efficient than non-specialized production, and our banks often afford good examples of specialization in distributing various duties and functions among their workers and officials. Specialization among banking institutions has not developed to so great an extent, for in the past many banks have operated as commercial, savings, and (indirectly)

investment banks, and have sometimes undertaken trust company functions as well. The combination of commercial and investment banking, through investment affiliates, was sometimes unfortunate, since it apparently led the affiliates to unload doubtful securities on the commercial banks or induced these banks to make loans to their affiliates in amounts and on securities which would not have been considered satisfactory by the directors of independent banks. This situation has been cleared up to some extent by recent legislation. However, although commercial and investment banking institutions have been made to specialize to a greater extent than formerly, some people think that further specialization as between commercial and savings operations might be desirable. Some confusion of function has apparently occurred in the past, as typified perhaps by the payment of interest on demand deposits and the tying up of funds in uses from which, under certain conditions, they could not be readily withdrawn, while maintaining an obligation to pay off demand depositors upon request. The banking business has also shown that, although the large-scale enterprise may often have certain advantages over the small-scale firm in the same

field, as contended in the principles of economics, mere size in banking is no guarantee of either efficiency or safety.

In January, 1934, the dollar's weight in gold was reduced from 25.8 to 15 $\frac{5}{21}$ grains of gold nine-tenths fine. This so-called devaluation of the dollar by about 41 per cent was expected by many people, including apparently some bankers and officials of the present administration in Washington, to have the effect of immediately raising the general price level by an equivalent amount. In reality, of course, no such result was forthcoming. Any persons who were puzzled when their predictions of sharply rising prices were not fulfilled might have understood the reason had they consulted the principles of economics and learned that, according to the quantity theory of money, the value of money, other things being equal, is a function of its quantity and not a direct function of the kind and quantity of metallic reserve which is held behind each unit of money. Lowering the gold content of the dollar made it possible for a larger total quantity of money and credit than formerly to be issued on the basis of a given-sized gold reserve, but, unless and until such larger amounts of money and credit should actually come into circulation, no startling effects on the general price level were to be expected, and even then the effects would have occurred according to schedule only if no change took place in velocity of circulation or volume of trade which would have offset the increased quantity of money and credit.

The business of banking is also subject to the influence of demand and supply considerations, as events of recent years have shown. Our national government followed many policies in the worst years of depression after 1929 which were calculated to lower interest rates, increase bank reserves, stimulate borrowing by business men, and lead to business recovery, but these policies were, generally speaking, not very successful. Now it is a commonplace of economics that, other things being equal, you cannot increase the demand for anything by lowering its price. You can, of course, increase the so-called market demand, or the quantity which buyers or borrowers will take, by lowering the price, but the demand schedule remains unchanged. To induce recovery through credit operations, a change in the schedule demand for credit was needed. Business men had to be made willing to take larger amounts of credit at *all possible rates of interest*, and this could not be accomplished through lowering the rate of interest. The lowering of the interest rate and the increase in bank reserves only served to fill the trough with water and make the water readily accessible. It did not make the business horse thirsty or get him to approach the trough.

While instances of the application of economic fundamentals to the business of banking could be multiplied, it seems that general economics may be of greater use to bankers in other ways. In the first place, general economics may be helpful to the banker in his effort to acquire a broad outlook and perspective in re-

lation to economic matters. No one likes to have it said of him that he "fails to see the forest for the trees," but when individuals are thoroughly immersed for long periods of time in the affairs of a particular business or line of economic activity it is easy for them to become so interested in the characteristics of their particular trees that they fail to grasp the significance of the forest as a whole or to understand the relationship which exists between their trees and the entire forest. The banker should not expect to derive from general economics any valuable pointers as to the mechanics of operating his enterprise, for he already knows much more about these things than the ordinary theorist, but he can learn from general economics something about the economic tendencies and developments which have created the modern economic situation in which our various kinds of banks have important functions to perform, and can perceive how the affairs of the banking business are related to those of the economic system as a whole.

Along with a broad outlook on economic matters, the banker who is well informed in the field of general economics is likely to develop something of a social point of view, and he may often find himself considering the advisability of certain banking policies or practices from the point of view of their effects on the economy as a whole, as well as their desirability in connection with the earnings or profits of his own enterprise. It is a very common and human error for the individual to

assume that his interests are identical with those of society as a whole, and that anything which is good for him or his business must, therefore, be good for society as a whole. This is, of course, the assumption that some American manufacturers have made for many years in regard to the tariff. They see that their own businesses are benefited, and it is easy for them to convince themselves (and, unfortunately, others too) that the protective tariff is a boon to everyone. From general economics, the banker learns that there are many cases in our modern complex economy in which the interests of the individual are opposed to those of society as a whole, and that Adam Smith's famous invisible hand is now greatly impeded in its traditional effort to make the individual confer a benefit on society whenever he engages in economic activities intended only to benefit himself. The banker who is familiar with general economics is less likely than others to fall into the type of error described here.

General economics teaches that economic activity takes place because of a fundamental conflict which exists between the plentifulness of human wants and the scarcity of the means for their satisfaction. Human wants have expanded rapidly in the past, and there is every reason to think that they will continue to grow in the future. The means for satisfying these wants, known as agents of production, are scarce and, since labor and capital may be expanded in quantity over a period of time, the virtually unchanging land supply is the factor

which is most important in limiting the production of economic goods. Moreover, the scarcity of land cannot be overcome by applying increasing quantities of labor and capital to fixed amounts of land, for the Law of Diminishing Returns tells us that attempts to increase production in this way will sooner or later encounter unfavorable results in the form of diminishing increments of product. Because of this troublesome situation, human ingenuity has been working overtime to perfect ways and means of increasing the production of economic goods, and the result is our modern system of roundabout, specialized, and large-scale production.

However, production which is roundabout, specialized, and large-scale usually requires large amounts of capital, and the resources of individual enterprisers are likely to be inadequate for this purpose. The corporation has come to be the leading type of business organization because, in addition to other advantages, it is able to acquire large amounts of funds for capital purposes; its capital-raising ability, however, is dependent to a great extent upon the activities of investment bankers. These bankers perform a very important function when, through the sale of security issues, they collect the savings of large numbers of persons of small means and turn these savings over to business enterprises for capital purposes. However, considerations of general economic welfare might lead us to desire several things of

investment bankers in their performance of this function.

First, we should probably desire investment bankers to provide the greatest possible degree of safety for purchasers of the securities issued by investment banks. Investors must be protected from securities that are fraudulent in character and from security salesmen who grossly overstate the possibilities of the stocks and bonds which they offer to the public. Second, we should hope that the issuance of investment credit will not be so extended at certain times and so restricted at others that it becomes an important cumulative factor in causing business instability. Again, investment credit should be distributed among the industries, seeking it in such a way as to coordinate the creation of new productive facilities with the desires of consumers for economic goods. Finally, we should insist that investment banks, in performing their functions, should not be permitted to get a strangle-hold on industry by threatening to withhold needed credit if such control should be denied them.

Now there are some people who suggest that some, if not all, of these objectives are likely to be unattainable if investment bankers operate their businesses solely for the purpose of maximizing profits. It is probable that the desire for profits accounted for at least some of the abuses which our recent Federal laws regulating the sale of securities and the operation of security exchanges sought to correct. The

desire to maximize profits or to minimize losses is probably partly responsible for the fact that the investment banking industry operates by fits and starts, with the issuance of investment credit reaching flood proportions in some periods of business prosperity and drying up to a mere trickle at other times, though the responsibility for this condition must be shared by many other people in addition to the investment bankers. In deciding which industries are to receive investment credit out of the limited funds available at a certain time, it would be surprising if investment bankers did not pay some attention to the relative profitability of marketing various security issues, but their decisions on this basis may sometimes lead to the overexpansion of industries which are already well supplied with capital while other industries whose products are needed in greater volume by society are at least temporarily unable to expand their facilities. Many considerations other than the desire for profits may influence investment bankers in their attempts to obtain some measure of control over the management of the industries which they help to finance, but it seems likely that the desire for profits plays some part in this matter. Here, then, is apparently one case in which some bankers, by pursuing their own interests too closely, may prevent the attainment of certain social objectives.

We also learn from general economics that specialized production makes it necessary for a tremendous volume of exchanges to take place, and also that modern production

creates large quantities of goods in anticipation of demand, rather than on order. Business men and companies continually find themselves in possession of certain special forms of purchasing power, or claims upon the wealth of the community. These may, for example, take the form of goods finished but unsold, or goods sold but not yet paid for. In time, through the process of exchange, payment for their goods will be received by these business men and companies. In the meantime, however, the smooth, efficient operation of production demands that further raw materials be purchased, that wages be paid, and that the other regular expenses of business operation be met when due. In these situations, commercial banks are able to render a great service to business men. By means of short-term loans, these banks substitute their purchasing power of general acceptability (money or deposits subject to check) for the purchasing power of limited acceptability (goods, notes, or drafts) which is possessed by business men and firms. In this way business enterprises are able to command at once the commodities and services which they require and are expected later on to pay their debts to the banks with interest. While other types of loans are made by commercial banks, there are still some economists who think that the making of short-term commercial loans to business men should be considered the principal function of institutions which really intend to operate as *commercial* banks. However, there are some people who doubt whether some of our com-

mercial banks do really intend to operate as commercial banks.

At any rate, the individual banker in making his various loans is faced with something of a dilemma. Every extension of these loans is likely, on the one hand, to increase the profitability of his enterprise and, on the other hand, to make it less likely that he can pay off his depositors in full if any large number of them ask for their deposits at any given time. Decisions as to how far to go in the extension of commercial credit may be left to the judgment or conscience of the individual banker, or some control over his decisions may be exercised through regulation. In the United States, the latter course of action has been followed, and banking laws have specified certain minimum reserves which banks must keep behind their deposits, in the hope of setting some limits on the expansion of credit and of providing at least a minimum degree of safety for depositors. It would be a considerable understatement to say that we have not been completely successful in attaining these objectives through legislation.

In some other countries, as in England for example, commercial bankers find themselves subject to very little regulation in the matter of credit expansion. Decisions as to the extent to which commercial credit should be expanded and as to the types of loans which should be made by commercial banks are left largely to the judgment of the individual bankers, who are guided by a firmly-established tradition of sound banking. The English bankers

refrain from making loans of certain types, which have sometimes been made by our commercial bankers, just as they would avoid wearing overalls to a formal dinner party or eating peas with their knives, and not because of legal regulations hanging over their heads. In general, in view of the safety record of English banks, there may be something to be said for this system; many of our economists are convinced that any significant improvements in our banking standards must come from inside the banking structure, not from outside, and that it is difficult, if not impossible, to make good bankers by legislation. Otherwise, our bankers should be nearly perfect by now in view of the large number of laws and regulations with which banking is burdened.

A further perusal of economic principles suggests that, in the opinion of many economists, money and credit should play a purely neutral part in the operation of our economic system; that is, they are supposed merely to facilitate the carrying on of the processes of production, exchange, and consumption. They are legitimate devices for avoiding the inconveniences of a barter economy and for reaching and carrying out economic decisions which, in the interests of society, should be reached and carried out even if money and credit did not exist, but money and credit should not affect the *content* of these decisions. Money and credit should not be—but sometimes are—issued in such ways and amounts as will raise general prices, stimulate business activity, increase

profits and induce overinvestment in plant and equipment, reduce real wages and labor's purchasing power, and otherwise bring about conditions which will later lead inevitably to business depression. Nor should the quantity of money and credit at other times be decreased so sharply as to precipitate business crisis, liquidation, and depression, when these predicaments might be avoided. Whether or not money and credit can be controlled so as to stabilize business activity, they certainly should not be allowed to be a principal factor in bringing about instability.

In other words, money and credit are the lubricants of the economic engine, intended to facilitate its operation but not to induce acceleration or retardation. When money and credit step out of their proper role, the functioning of the economic machine may be improved for a time, but eventually a breakdown occurs, or a period in which the machine functions at only half speed. These breakdowns of the economic engine, which we call depressions, are unfortunate not merely because of the losses and suffering which they produce, though these things are serious enough, but also because they give our socialists and communists an opportunity to insist that we need to scrap the old economic engine, and substitute another of new and radical design, when in reality all we may need is an oil-change.

Now it seems that there can be little doubt that the overexpansion of bank credit played a part in building up the business boom which

came to an end in 1929, though this point requires some explanation. In general, an economist looks rather silly when he attempts to account for any major depression in business in terms of any single factor, such as the expansion of bank credit, and his error is greatly magnified when he tries to explain all business cycles in terms of the same single factor. It is clear, of course, that bankers cannot extend credit unless there are people who want to borrow and that the expansion of bank credit tends to be a cumulative factor, rather than a generating factor, in connection with business booms and depressions. But the opinion is widely held among economists that our business fluctuations of the cyclical variety could not possibly attain the magnitude or severity which they often have, if it were not for the overexpansion of bank credit in periods of prosperity.

The developments which occurred in the field of commercial banking in this country in the prosperous era from 1921 to 1929 are well known. According to statistics for all member banks in the Federal Reserve System, ordinary commercial loans to business men, based upon short-term, self-liquidating commercial paper arising out of the exchange of commodities, remained virtually constant during the period. The failure to expand loans of this type may have been due to factors which the bankers could not control. It may be that the speeding-up of delivery services made it possible for some business men to reduce their inventory requirements and adopt the policy of hand-to-mouth buying; and

perhaps other firms were reluctant to become too heavily indebted to commercial banks while the bitter experiences of the 1921 depression were still fresh in their minds. Then, too, as the period wore on, it is possible that their own large profits provided many business men with an adequate supply of funds and that so-called favorable stock market conditions induced some corporations to obtain, by the sale of additional shares of stock, funds which would ordinarily have been borrowed from the banks. Whatever the specific causes may have been, it is a fact, despite a 48 per cent increase in total loans and investments, the member banks were performing their principal function of providing short-term business credit no more briskly at the end of the period than at the beginning.

But during the period large additions were made to the gold stocks of the country, bank reserves were plentiful, and the Federal Reserve System, for various reasons, consistently followed an "easy money" policy. Since banking is not a profitable business unless bank funds are kept at work, the member banks, in the absence of appeals for ordinary commercial loans, decided to make use of their funds in other fields. From 1921 to 1929, member banks increased their loans on real estate by 214 per cent, their loans on stocks and bonds by 129 per cent, and their direct security purchases and investments of other kinds by 67 per cent. These loans and investments may have been perfectly legal and also quite sound *as individual transactions*, but it is scarcely necessary to

remind ourselves that, when they were expanded tremendously by our banking system as a whole, they brought many of our banks to a position in which they could not meet the demands of depositors in the great depression after 1929. This, then, appears to be another of the many cases in which practices which may be sound and desirable from the point of view of any single individual may produce serious if not fatal results when engaged in by large numbers of individuals, just as the restriction of output by the individual worker may bring him a profit, whereas the restriction of output by all workers would be ruinous for individuals and society alike.

In the depression years since 1929, the Federal government has engaged in a tremendous program of spending and has pursued many other policies designed, so we are told, to increase mass purchasing power, stimulate business activity, and induce recovery from the depression. It is hardly necessary to say that these various policies of the present Administration have been derided and severely criticized by bankers in general. They have said that the spending and other policies are unsound and likely to lead to inflation, and cannot bring about a permanent recovery, for, although a temporary revival in business activity may be produced, the effect will last only so long as the spending continues. The administration policies remind the bankers of an attempt to cure a man suffering from a dangerous disease by giving him a succession of "shots in the arm." Such stimulants may

produce a temporary feeling of well-being or even exaltation on the part of the patient, but they do nothing to cure the original deep-seated ailment.

It may well be that most of the bankers' criticisms are entirely valid. However, there may be some question as to the reasonableness of their critical attitude. Are the administration's "shots in the arm of business" in depression really very different in effect from the shots in the arm which our bankers administered to business in the "new era" which ended in 1929? These stimulants furnished by the bankers played a part in building up the boom; the resulting prosperity was largely unsound, not to say inflationary, in a sense; and it could not continue once the bankers stopped or cut down on the stimulants. To approve of shots in the business arm when privately administered in times of prosperity, and to disapprove thoroughly of similar stimulants when applied by public authority under depression conditions, seems to some economists hardly consistent from a logical point of view.

Now a foolish consistency may be, as Emerson said, the hobgoblin

of little minds, and a person may sometimes deserve applause for brilliant inconsistency, but in this case the apparent inconsistency of the bankers' position seems to be due to their holding valiantly to the individual, rather than the social, point of view in appraising economic policies. Some people would put it more baldly and say that the bankers think that their own policies in prosperous times are good for their individual enterprises but that the government's policies in depression are bad for their individual enterprises, even though the two sets of policies may really have quite similar effects, and be open to similar criticisms, from the point of view of society.

Considerations such as those which have been discussed in the latter part of this article lead one to believe that those engaged in the business of banking can obtain the greatest benefit from general economics by using that subject to assist them in developing a broad outlook on economic matters and an ability and willingness to think as often as possible from a social, rather than a purely individualistic, point of view.

COMMUNICATION

The Mechanization of Illinois Coal Mines

IN THE February, 1940, issue of *Opinion and Comment*, Mr. Taylor discussed some financial aspects of the mechanization of Illinois coal mines. This discussion from a strictly business viewpoint, showing the disadvantage of building up high overhead costs by investing in mechanical equipment—largely used in loading—should perhaps be supplemented by a brief mention of the effects upon labor and consumer groups.

It is frequently assumed that the introduction of labor-saving devices must immediately displace some labor. Often this is only too true. There are circumstances, however, under which improved technology provides labor with jobs that might not otherwise be available. A recent study by the Works Progress Administration National Research Project, *Bituminous-Coal Mining*, shows that this has been true in Illinois mines.

The most rapid mechanization of mining in Illinois occurred after the expiration of the Jacksonville Agreement in 1927, when Illinois and Indiana mines, highly organized, were facing the competition not only of substitutes like oil and electricity, but also of unorganized mines to the east, south, and southwest. Whereas in 1926 only 4 per cent of the Illinois output was machine-loaded,

four years later the percentage of output loaded by machine was 48, and by 1937 more than 70.

For purposes of comparison, Illinois mines were divided into two groups: those producing more than 30 per cent of their output mechanically, and those producing less than that proportion mechanically. Between 1918 and 1935, the number of mines in the former or "mechanized" group dropped from 52 to 32, or 38 per cent, and the number in the other group decreased from 434 to 295, or 32 per cent. In the latter group, however, 99 mines, 23 per cent of the entire number, were newly opened trucking mines without sound backing. Furthermore, the former group was able to increase its share of the declining output; up to 1926, its actual output increased by eight million tons while the non-mechanized group was losing thirty-one million tons. This difference was probably due to better management, resources, and trade outlets as much as to improved technology, but it hardly indicates that investing in equipment had injured these mines.

In the face of existing competition, both groups of mines seem to have excess capacity. But since there has been a decline in hourly capacity in the mechanized mines since 1927, at a time when mechani-

cal loading was increasing, there is little evidence that the use of such equipment has been an important factor in excess capacity.

Turning more specifically to the question of employment, it may be admitted that more miners would have been employed in 1935 if unit labor requirements had not changed. But it seems highly improbable that, in the face of shrinking markets, Illinois mines could have continued to produce under the old requirements. Up to 1927, while the non-mechanized mines showed a decline of 38 per cent in employment, the mechanized mines *increased* employment by 51 per cent. Part of this increased employment in mechanized mines is explained by the larger number of them. But even excluding newly mechanized mines, there was still an increase of 39 per cent in employment in the group. After 1927, when mechanization was becoming predominant, both groups experienced declines in employment of approximately the same percentages; but the decline from the peak of employment to 1935 was 66 per cent for the non-mechanized group, and only 48 per cent for the mechanized. This is modified by the use of "share - the - work" agreements, which prevailed in the mechanized mines. Perhaps it should also be noted that the mechanized group provided more days of work each year; in fact, in 1933, 1934, and 1935, they averaged 24 more days annually than the other mines.

Under present conditions in Illinois coal mines, it thus seems that, so far as technological unemployment is concerned, more—rather

than less—employment has resulted from mechanization. This might indeed have been expected. Quite aside from the use of substitute fuels, Illinois coal has had to compete with coal of at least equal quality produced in other states where the lack of union organization until recently has permitted the paying of low wages. The consequent production in these fields has brought about a condition of excess capacity in the Illinois mines.

Obviously, only those mines that could reduce costs could continue to produce. A few trucking mines, operating on a shoestring, have been opened; but the introduction of labor-saving devices has played a notable part in reducing costs. It may not be an exaggeration to assert that many of the mines could not have operated at all without mechanization. If this is true, it follows that the labor force now working is employed *because* of the technological improvement, and that there is less unemployment in the Illinois coal fields than would otherwise be present. The unions have recognized this fact, and have encouraged the use of automatic loading devices.

From the employer's viewpoint, the mortality of mining enterprises has been proportionately less in the mechanized group, although its favorable position may have resulted as much from better management and resources as from technology.

From the consumer's angle, coal has been made available as a cheap fuel, and its competition with other fuels has likely kept down their cost.

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